IMAGE-BASED CONTROL OF VIDEO GAMES

ABSTRACT

Image-based video game control devices are described. In one aspect, a
device for controlling a video game includes an input, an imager, and a

5   movement detector. The input has a movable reference surface. The imager is
operable to capture images of the reference surface. The movement detector is
operable to detect movement of the reference surface based on one or more
comparisons between images of the reference surface captured by the imager and
to generate output signals for controlling the video game based on the detected

10   movement. In another aspect, a device for controlling a video game includes a
movable input, an imager, and a movement detector. The imager is attached to
the input and is operable to capture images of a scene in the vicinity of the input.
The movement detector is operable to compute three-dimensional position
coordinates for the input based at least in part on one or more comparisons

15   between images of the scene captured by the imager and to generate output
signals for controlling the video game based on the computed position
coordinates.